Docket: 0756-7190

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re DIVISIONAL application of	)	
Shunpei YAMAZAKI et al	)	
Based on Serial No. 09/781,154	)	Group Art Unit: 2817
Filed: February 13, 2001	)	Examiner: Tai Duong
For ELECTRO-OPTICAL DEVICE	}	

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. 1.56 and 37 C.F.R. 1.97-1.99, Applicant submits herewith a Form PTO-1449 listing references known to Applicant and requests that these references be made of record in the above identified application. Copies of the references listed are submitted herewith in accordance with 37 C.F.R. 1.98(a).

The references listed on the attached Form PTO-1449 were cited in parent application Serial No. 09/781,154, and predecessor Application Serial Nos. 08/677,330; 08/447,549 and 08/024,946 and copies of the references can be found in those applications.

Respectfully submitted,

Eric J. Robinson

Reg. No. 38,285

Robinson Intellectual Property Law Office

PMB 955

21010 Southbank Street

Potomac Falls, Virginia 20165

(571) 434-6789 (Voice)

(571) 434-9499 (Facsimile

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Substitute	e for form 1449A/PTO			Complete if Known		
INFO	RMATION I	nisci	LOSURE	Application Number	Based on 09/781,154	
	TEMENT BY			Filing Date	February 13, 2001	
SIAI				First Named Inventor	Shunpei YAMAZAKI, et al.	
	(use as many sheets of	is necesso	iry)	Group Art Unit	2871	
				Examiner Name	Tai V. Duong	
Sheet	1	of	4	Attorney Docket Number	0756-7190	

				U.S. PATENT DOCUMEN	rs	
Examiner Initials*	Cite No.1	U.S. Patent Document		Name of Patentee or Applicant of Cited	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)	Document	MM-DD-YYYY	
		5,389,287		Nishiyama et al.	02/14/95	
		5,223,959		Wu et al	06/29/93	
		5,253,090		Yamazaki et al.	10/12/93	
		5,078,477		Jono et al.	01/07/92	
		5,200,846		Hiroki et al.	04/06/93	
		4,818,070		Gunjima et al.	04/04/89	
		5,087,387	}	Mullen et al.	02/11/92	
		5,268,783		Yoshinaga et al.	12/07/93	
		5,378,396		Yui et al.	01/03/95	
		5,178,571		Mase	01/12/93	
		5,321,553		Kunar	06/14/94	
		5,566,009		Yamazaki et al.	10/15/96	
		5,289,030		Yamazaki et al.	02/22/94	
		4,239,346		Lloyd	12/16/80	

			F	OREIGN PATENT DOC	UMENTS					
Examiner Initials	Cite No.	Office <sup>3</sup>	Foreign Patent Document  Kind Code <sup>3</sup> Number <sup>4</sup> (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	7°			
	+	JP	02-000824	<del> </del>	01/05/90		Abst.			
	1	JP	02-222930		09/05/90		Abst.			
	1	JP	49-077537		07/26/74		None			
	1	JP	62-126677		06/08/87		Abst.			
		JP	63-010777	T	05/02/88		Abst.			
		JP	64-030272		02/01/89		Abst.			
			OTHER PRIOR	ART - NON PATENT LITE	RATURE DOCUMENTS					
Examiner Initials	Cite No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.)., date, page(s), volume-issue number(s), publisher, city and/or country where published.							
	Molsen et al., "Antiferroelectric Switching Liquid Crystals," Japan J. Appl. Phys. Vol. 31, Part 2, No. 8A, August 1, 1992, pp. 1083-1085.									

Examiner	Date
Signature	Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute	for form 1449A/PTO			Complete if Known		
INFO	RMATION I	DISC	LOSURE	Application Number	Based on 09/781,154	
	TEMENT BY			Filing Date	February 13, 2001	
SIAI				First Named Inventor	Shunpei YAMAZAKI, et al.	
	(use as many sheets o	s necesso	ary)	Group Art Unit	2871	
				Examiner Name	Tai V. Duong	
Sheet	heet 2 of 4		Attorney Docket Number	0756-7190		

				U.S. PATENT DOCUMEN	rs	
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document  Number Kind Code <sup>2</sup>		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	<del></del>	5,612,799	(if known)	Vomegali et al	02/19/07	
				Yamazaki et al.	03/18/97	
	4	4,834,509		Gunjima et al.	05/30/89	
	1	5,424,244		Zhang et al.	06/13/95	]
		5,849,043		Zhang et al.	12/15/98	
		5,287,205		Yamazaki et al.	02/15/94	
		5,568,288		Yamazaki et al.	10/22/96	
		5,351,145		Miyata et al.	09/27/94	
		5,055,899		Wakai et al.	10/08/91	
		5,051,570		Tsujikawa et al.	09/24/91	
		4,938,565		Ichikawa	07/03/90	
		5,003,356		Wakai et al.	03/26/91	
		5,012,228		Masuda et al.	04/30/91	
		4,818,077		Ohwada et al.	04/04/89	
		4,680,580		Kawahara	07/14/87	
		4,949,141		Busta	08/14/90	
		4,103,297		McGrievy et al.	07/25/78	
		5,056,895		Khan	10/15/91	

	FOREIGN PATENT DOCUMENTS													
Examiner Initiats	Cite No.1	Foreign Patent Document		Name of Patentee or	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant								
		Office <sup>3</sup>	Kind Code <sup>3</sup> Number <sup>4</sup> (if known)	Applicant of Cited Document	MM-DD-YYYY	Figures Appear	T <sub>6</sub>							
		JP	2-188723		07/24/90		Abst.							
		JP	63-271233		11/09/98		Abst.							
		JP	04-122913		04/23/92		Abst.							
	7	JP	2-210330		08/21/90		Abst.							
	T	JP	0051129		02/1990		Abst.							
		JP	1130131		05/1989		Abst.							
		JP	61-141174		06/28/86		Full							
	T	JP	55-32026		03/06/80		Full							
		JP	2-234134		9/1990		Full							

1	Examiner	D	Date
	Signature	C	Considered

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Substitute	for form 1449A/PTO			Complete if Known		
INFO	RMATION I	nisci	LOSLIDE	Application Number	Based on 09/781,154	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	February 13, 2001	
31A1				First Named Inventor	Shunpei YAMAZAKI, et al.	
	(use as many sheets o	as necesso	ary)	Group Art Unit	2871	
				Examiner Name	Tai V. Duong	
Sheet	Sheet 3 of 4			Attorney Docket Number	0756-7190	

				U.S. PATENT DOCUMEN	ΓS	
Examiner Initials	Cite No.1	U.S. Pateni I	Ооситепт	Name of Patentee or Applicant of Cited	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)	Document	, was a second of the second o	
		4,897,639		Kanayama	01/30/90	
		3,955,187		Bigelow	05/04/76	
		4,427,978		Williams	01/24/84	
		4,742,346		Gillette et al.	05/03/88	
		4,818,981		Oki et al.	04/04/89	
		4,841,294		Clerc	06/20/89	
		5,091,722		Kitajima et al.	02/25/92	
		5,250,931		Misawa et al.	10/05/93	
	1	5,327,001		Wakai et al.	07/05/94	
		5,495,353		Yamazaki et al.	02/27/96	
		5,084,905		Sasaki et al.	01/28/92	
		4,660,030		Maezawa	04/21/87	
	7	4,873,516		Castleberry	10/10/89	
	T	5,196,839		Johary et al.	03/23/93	
		5,408,246		Inaba et al.	04/18/95	
		5,414,443		Kanatani et al.	05/09/95	
		4,973,135		Okada et al.	11/27/90	
		5,142,272		Kondo	08/25/92	
		4,021,607		Amano	05/03/77	

	FOREIGN PATENT DOCUMENTS													
Examiner Initials	Cite No.1	Foreign Patent Document			Name of Patentee or	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant							
		Office <sup>3</sup>		(if known)	Applicant of Cited Document	MM-DD-YYYY	Figures Appear	T <sub>e</sub>						
		JP	64-068732			03/14/89		Abst.						
		JP	1156725			06/20/89		Full						
		JP	0068724			03/1989		Abst.						
		EP	0 321 073		T	06/21/89		Abst.						
		EP	0 349 415		1	03/01/90		Abst.						
		JP	63-082177			12/04/88		Abst.						
	1	JP	0144297			12/1978		Abst.						

Examir	ner	Date
Signatu	re	Considered

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				Filing Date	February 13, 2001	
STATEMENT BY APPLICANT				First Named Inventor	Shunpei YAMAZAK1, et al.	
	(use as many sheets o	as necesso	iry)	Group Art Unit	2871	
				Examiner Name	Tai V. Duong	
Sheet	4	of	4	Attorney Docket Number	0756-7190	

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No 1	U.S. Patent Document	Name of Patentee or Applicant of Cited	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		Number Kind C (if know		MM-DD-YYYY			
		4,649,432	Watanabe et al.	03/10/87			
		4,743,096	Wakai et al.	05/10/88			
		4,752,774	Clerc et al.	06/21/88			
		5,352,379	Nishiyama et al.	10/04/94			
		5,305,126	Kobayashi et al.	04/19/94			
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Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document  Kind Code <sup>4</sup> Office <sup>3</sup> Number <sup>4</sup> (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
							T <sup>6</sup>		
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			ОТ	HER PRIOF	R ART – NON PATENT LITE	RATURE DOCUMENTS			
Examiner Initials*	Cite No.1	lnclude name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.)., date, page(s), volume-issue number(s), publisher, city and/or country where published.							
		IBM Technical Disclosure Bulletin, Vol. 33, No. 6B, November 1990, New York, pgs. 384-385, XP000108914, "Driving Method for TFT/LCD Grayscale."							
		MOLECULAR CRYSTALS AND LIQUID CRYSTALS (INC. NONLINEAR OPTICS), Vol. 185, August 1990, Chur, CH, pgs. 67-74, XP0001692922, G. PM Montgomery et al., "Improving Multiplexability of Polymer-Dispersed Liquid Crystal Films by Dual							
		Frequency Addressing."							
		Kobayashi et al., "Rear Projection TV Using High Resolution a-Si TFT LCD," pp. 114-117, SID 98 Digest, May 1989.							

Examiner	Date
Signature	Considered

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